

WHAT IS CLAIMED IS:

1. A measuring apparatus for measuring an article while transporting the article, comprising:

5 a measuring conveyor having weight detecting means and a plurality of belts spaced apart widthwise from each other, said belts being born by said weight detecting means, said measuring conveyor transporting an article on belt transporting surfaces of said belts and measuring a weight of the article during the transportation;

10 a feed conveyor having a plurality of first transporting members each having a first transporting surface;

a discharge conveyor having a plurality of second transporting members each having a second transporting surface; and

15 a central conveyor having a third transporting member that has a third transporting surface and is arranged between said plurality of belts of said measuring conveyor, said third transporting member extending through said measuring conveyor along a transporting direction, wherein

20 said third transporting surface of said central conveyor has level portions and a lower portion, said level portions being disposed in a first transfer area between said feed conveyor and said measuring conveyor, and a second transfer area between said measuring conveyor and said discharge conveyor, said lower portion being disposed where said measuring conveyor is located, said level portions of said third transporting surface being located at substantially the same height as the belt transporting surfaces of said measuring conveyor, said lower portion being located vertically below the belt transporting surfaces of said measuring conveyor.

25 2. The measuring apparatus according to claim 1, wherein at least one of the belts of said measuring conveyor is formed of a flat belt, and each of said first, second and third transporting members is thicker than said flat belt.

30 3. The measuring apparatus according to claim 1, wherein:

said central conveyor further includes a pusher pushing downward said third transporting member in said lower portion such that said lower portion of said third transporting member of said central conveyor is vertically shifted downward from the belt transporting surfaces of said belt.

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4. The measuring apparatus according to claim 1, wherein
said measuring conveyor further includes pulleys that are disposed on upstream
and downstream positions in the transporting direction,

10 said belt of said measuring conveyor is an annular member wound around said
pulleys, and

a diameter of said upstream pulley is smaller than a diameter of said downstream pulley.

15 5. The measuring apparatus according to claim 4, wherein
said downstream pulleys are supported by a first axis, said first axis extending
through said downstream pulleys and a space under said third transporting member of said
central conveyor, and

20 each of said pair of upstream pulleys is individually supported by one of a pair of
second axes, said second axes not extending through the space under said transporting
member of said central conveyor.

25 6. The measuring apparatus according to claim 1, wherein
said plurality of first transporting members is spaced apart in the travelling
direction from said plurality of belts, and
said plurality of second transporting members is spaced apart in the travelling
direction from said plurality of belts.

30 7. The measuring apparatus according to claim 6, further comprising
first bridge plates arranged between said first transporting members and said belts,
said first bridge plates being arranged at substantially the same level as said belts; and
second bridge plates arranged between said second transporting members and said
belts, said second bridge plates being arranged at substantially the same level as said belts.

8. The measuring apparatus according to claim 1, wherein
said first transporting surfaces, said belt transporting surfaces, and said second
transporting surfaces are arranged at substantially the same level.

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9. The measuring apparatus according to claim 1, wherein
said first transporting members, said belts, and said second transporting members
are disposed in a linearly extended manner with respect to one another.